Article

ZOOTAXA

Towards a List of Available Names in Zoology, partim Phylum Rotifera

HENDRIK SEGERS[1, *], WILLEM H. DE SMET[2], CLAUS FISCHER[3], DIEGO FONTANETO[4], EVANGELIA MICHALOUDI[5], ROBERT L. WALLACE[6] & CHRISTIAN D. JERSABEK[7]

[1]*Belgian Biodiversity Platform, Royal Belgian Institute of Natural Sciences, Vautierstraat 29, B 1000 Brussels, Belgium. E-mail: hendrik.segers@naturalsciences.be*

[2]*Department of Biology, Section Polar Ecology, Limnology and Palaeobiology, University of Antwerp, Campus Drie Eiken, Universiteitsplein 1, B-2610 Wilrijk, Belgium.*

[3]*Systematics and Evolutionary Biology, Institute of Biology and Environmental Sciences, University of Oldenburg, Carl von Ossietzky-Str. 9-11, 26129 Oldenburg, Germany.*

[4]*Imperial College London, Division of Biology, Silwood Park Campus, Ascot Berkshire SL5 7PY, United Kingdom.*

[5]*Department of Zoology, School of Biology, Aristotle University, GR-54124 Thessaloniki, Greece.*

[6]*Department of Biology, Ripon College, Ripon, WI, USA.*

[7]*Department of Organismal Biology, University of Salzburg, A–5020 Salzburg, Austria, and Academy of Natural Sciences of Drexel University, Center for Systematic Biology & Evolution, Philadelphia, USA.*
Corresponding author.

Abstract

Many, mostly older, names of animal species are nomenclaturally problematic, either because their orthography is unstable, or they cannot be linked reliably to a taxonomic identity, due to the lack of recognisable descriptions and/or types. Yet, they represent available (*sensu* International Code of Zoological Nomenclature) names and must be taken into account in zoological works. This situation, with available senior, yet dubious names confounding nomenclature, is undesirable. It creates uncertainties at a time when molecular approaches are revolutionizing our concepts of species diversity, and fails us when the current extinction crisis calls for efficient, accurate, and constructive approaches to document, monitor, and conserve biodiversity.

The International Code of Zoological Nomenclature (The Code) provides a means to address this issue by restricting availability, application and orthography of names to those included in the *List of Available Names in Zoology* (LAN). The Code (Art. 79) allows an international body of zoologists in consultation with the Commission to propose a candidate part of the LAN for a major taxonomic field. We explore this possibility for 3570 species-group names of Phylum Rotifera (of which 665 are problematic), by presenting such a candidate Rotifera part of the LAN. The web site of the International Commission on Zoological Nomenclature (http://www.iczn.org) will hold both the candidate list and a forum to facilitate consultation on the candidate list, while the list itself also can already be freely downloaded from three other Internet sites: http://fada.biodiversity.be, http://rotifer.ansp.org/LAN, and www.hausdernatur.at/rotifera. We give here an overview of the general approach and procedures applied in preparation of the candidate list, and anticipate that our effort will promote the process as well as result in a standard list of names for use in taxonomy, the Global Names Architecture and other biodiversity information initiatives.

Key words: International Code of Zoological Nomenclature, taxonomy, nomenclature, names standards

Introduction

Since the publication of Linnaeus's *Systema Naturae* over 250 years ago, the practice of referring to organisms using a binominal nomenclature has become a universal tool in scientific communications. The International Commission on Zoological Nomenclature (the Commission) oversees development of the International Code of Zoological Nomenclature (the Code), which promotes much-needed stability in the application and use of scientific names. The Code's principles of typification, priority, synonymy and homonymy have contributed greatly to the success of the system.

Nevertheless, over the past two and a half centuries, problematic, yet available names (in the sense of the Code) have proliferated. These issues may be related to various aspects of nomenclature such as inconsistent